

Amendments to the Claims

Underlining denotes added text while strikethrough denotes deleted text.

IN THE CLAIMS:

Claims 1-8. (Cancelled)

9. (Withdrawn) A method of producing an enzyme having modified phytase activity comprising:

- a) providing a host cell transformed with the expression construct of Claim 4; and
- b) culturing said host cell under conditions suitable for said cell to produce said phytase.

10. (Withdrawn) The method of Claim 9, further comprising:

- c) recovering said phytase.

11. (Withdrawn) The method of Claim 9, wherein said host cell is a *Bacillus* species.

12. (Withdrawn) The method of Claim 11, wherein said host cell is a *Bacillus subtilis*.

13. (Currently Amended) A method of producing recombinant phytase having modified activity, said method comprising:

- a) providing a nucleic acid comprising a sequence encoding a signal sequence operable in a *Bacillus* species and a sequence encoding an the AppA phytase of SEQ ID No. 2 or encoding a naturally occurring phytase of another source which is at least 60% identical to the AppA phytase of SEQ ID No. 2-natural-variant thereof;
- b) subjecting said nucleic acid to error-prone amplification;

- c) transforming a host cell with an expression construct comprising a product of said amplification; and
- d) culturing said host cell under conditions suitable for said cell to express said amplification product.

14. (Original) The method of Claim 13, wherein said host cell is *Bacillus subtilis*.

- e) recovering said phytase.

16. (Withdrawn) The recombinant phytase produced according to the method of Claim 13, wherein, said recombinant phytase comprises the amino acid sequence of amino acids 31-440 of the sequence designated PHY850 or PHY902 of Figure 12.

17. (Withdrawn) The recombinant phytase of Claim 13, wherein said modification is a substitution and said substitution is at amino acid sequence position 113.

18. (Withdrawn) The recombinant phytase of Claim 17, further comprising a modification at one or more of the amino acid sequence positions selected from the group consisting of residues corresponding to residue 26, 43, 46, 54, 73, 126, 184, 228, 384, and 410 of a mature AppA phytase or of a natural variant thereof.

19. (Withdrawn) The method according to Claim 13, wherein said nucleic acid comprises a sequence selected from one of the sequences listed in Figure 21.

- 20. (New) The method according to Claim 13, wherein the naturally

occurring phytase of another source is at least 85% identical to the AppA phytase of SEQ ID No. 6.

21. (New) The method according to Claim 13, wherein the naturally occurring phytase of another source is at least 90% identical to the AppA phytase of SEQ ID No. 6.

22. (New) The method according to Claim 13, wherein the naturally occurring phytase of another source is at least 95% identical to the AppA phytase of SEQ ID No. 6.